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Art Unit 2829

From: John Smith-Hill

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TECHNOLOGY CENTER 2800

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Edward W. NELSON et al

Art Unit: 2829

Application No: 09/991,019

Examiner:

Vinh P. Nguyen

Filed: November 15, 2001

~~73A Andt~~For: TEST HEAD INCLUDING DISPLACEABLE
SWITCH ELEMENT

M. Brunson

~~84/03~~REPLY TO THE OFFICE ACTION MAILED 04/07/2003COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Further examination and consideration of this application are
requested in view of the following Amendments and Remarks.

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DESCRIPTION AMENDMENTS

Page 1, rewrite the title to read as follows:

TEST HEAD INCLUDING DISPLACEABLE SWITCH ELEMENT

A1
Rewrite paragraph [0001] to read as follows:

This invention relates to an integrated circuit tester with backward-compatible pin cards a test head including a displaceable switch element.

A2
Rewrite paragraph [0026] to read as follows:

A pogo switch assembly 18 is attached to the pin card 10 at a lower edge thereof. Referring to FIGS. 3 and 4, the pogo switch assembly includes an upper pogo block 22 and a lower pogo block 26. An array of pogo pins projects downwards from the pogo switch assembly 18. Alignment pins 28 project from the pogo switch assembly 18 pin card 10 and engage guide bores in the docking plate 16 and thereby position the pogo pins relative to the docking plate.

A3
Rewrite paragraph [0030] to read as follows:

Referring to FIG. 4, the lower pogo block 26 is made of metal and is formed with a cavity 46 through which the pogo pins extend and which accommodates a conductive switch element 50. Below the switch element, the pogo pins pass through sleeves 42 of low-friction electrically insulating material, such as PTFE, which provide electrical insulation between the pogo pins and the lower pogo block.

A4
< Rewrite paragraph [0031] to read as follows: 7

Referring to FIG. 5A, the switch element 50 comprises an aluminum switch support frame 54, that which is made of aluminum and is displaceable within the cavity 46, and an interconnect strip 58 of a resilient conductive material, such as gold-plated beryllium copper, attached to the switch support frame 54. The frame 54 protrudes from the lower pogo block at its radially outer end and carries a follower 62. The follower 62 has an actuation face that is inclined upwards and outwards at an acute angle to vertical. The purpose of the follower will be described below. A compression spring 64 urges the switch element 50 radially outwards relative to the lower pogo block.

Rewrite paragraph [0034] to read as follows:

AK

The standard load board 30 ~~includes~~ is attached to a stiffener 90 for preventing excessive deflection of the load board due to the force exerted by the pogo pins when the load board is attached to the docking plate. The stiffener has inner and outer rings 92, 94 that are connected by spokes (not shown) so that the stiffener defines sector-shaped openings into which the pogo switch assemblies of respective groups of pin cards extend.

Rewrite paragraph [0037] to read as follows:

A5

The ~~internal radius of the outer stiffener ring 102 of location of the follower is such that when the legacy load board 100 is chosen~~ so that when the legacy load board is attached to the docking plate, the outer stiffener ring 102 serves as an actuation element that engages the actuation face of follower 62 and pushes the follower 62 and the switch support frame 50 54 attached thereto radially inwards against the force of the compression spring 64 to the position shown in FIG. 5B.